

Title (en)
Multi-thread bone screw

Title (de)
Knochenschraube mit mehreren Gewinden

Title (fr)
Vis pour osteosynthèse à pas multiples

Publication
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Application
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Abstract (en)

A bone screw (10) comprising a threaded shank (52) including a distal end portion (50a) and a proximal end portion (50b), and defining a first threaded section (60) extending from the distal end portion (50a) toward the proximal end portion (50b) and adapted for anchoring in cancellous bone, and a second threaded section (62) extending contiguously from the first threaded section (60) toward the proximal end portion (50b) and adapted for engagement in cortical bone, with the second threaded section (62) having a finer thread pattern relative to the first threaded section (60). In one embodiment, the first threaded section (60) includes a first helical threading (64) defining a single lead thread pattern for anchoring in cancellous bone, and the second threaded section (62) includes a second helical threading (66) interleaved with the first threading (64) to define a dual lead thread pattern for engagement in cortical bone. In a further embodiment, the bone screw (10) includes a head portion (54) extending from the threaded shank (52) and configured for coupling to a spinal implant.

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Citation (applicant)

- US 5643263 A 19970701 - SIMONSON PETER MELOTT [US]
- US 5947967 A 19990907 - BARKER THOMAS B [US]
- US 6471703 B1 20021029 - ASHMAN RICHARD B [US]

Citation (search report)

- [XYI] US 6030162 A 20000229 - HUEBNER RANDALL J [US]
- [Y] WO 0209601 A2 20020207 - ORTHOPAEDIC BIOSYSTEMS LTD INC [US], et al
- [Y] EP 0794336 A1 19970910 - HILTI AG [LI]
- [Y] FR 2789293 A1 20000811 - BOCKX EMMANUEL [BE]

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